Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_

**Geometry Unit Study Guide**

*Choose at least* ***four problems*** *from the table below.*

|  |  |
| --- | --- |
| **Bachelor’s** | |
| 1. What is the area of the figure? | 1. What is the area of the triangle? |
| **Master’s** |  |
| 1. What is the area of the figure? | 1. What is the area of the figure? |
| **PhD** |  |
| 1. What is the area of the figure? |  |

*Choose at least two sets of problems (Bachelor’s, Master’s or PhD) from the table below.*

|  |  |
| --- | --- |
| **Bachelor’s** | |
| 1. What is the volume of the cube below? | 1. What is the surface area of the cube from #7? Organize your work clearly by drawing a net and/or a table. |
| **Master’s** |  |
| 1. What is the volume of the prism? | 1. What is the surface area of the prism from #9? Organize your work clearly by drawing a net and/or a table. |
| **PhD** |  |
| 1. What is the volume of the prism? | 1. What is the surface area of the prism from #11? Organize your work clearly by drawing a net and/or a table. |

1. David is the groundskeeper at Triangle Park, scale shown below.
   1. David needs to cut the grass four times a month. How many square yards of grass will he cut altogether each month?
   2. During the winter, the triangular park and adjacent square parking lot are flooded with water and allowed to freeze so that people can go ice skating. What is the area of the ice?

1. Find the surface area of this triangular prism. All measurements are in meters.

1. Choose the net that can be folded and assembled into a triangular prism like the one in #14.
2. Here is a net made of right triangles and rectangles. All measurements are given in inches.
   1. If this net were folded and assembled, what type of polyhedron would it make?
   2. What is the surface area of the polyhedron?